

### **ABSTRACT OF THE DISCLOSURE**

The present invention provides a nucleic acid encoding IFN- $\alpha$  fusion proteins. The specification also describes the proteins encoded by said nucleic acids, methods of making IFN- $\alpha$  fusion proteins and methods of utilizing the compounds for the treatment of cancer. One specific IFN- $\alpha$  fusion protein comprising IFN- $\alpha$  or a portion thereof capable of enhancing the killing ability of an effector cell and an anti-CD20 antibody, such as RITUXAN®, which can target, for example, B cell lymphomas (e.g., non-Hodgkin's lymphoma).